

GRO-LUX® Aquarium and Aquarium Wide Spectrum Fluorescent Lamps for indoor gardening



- **Fluorescent lamps for indoor gardening**

Provide essential energy for

- Germination, propagation and growth
- Photosynthesis
- Chlorophyll synthesis
- Enhancing vegetation

- **Choice of Lamps**

- GRO-LUX Aquarium for plants requiring indirect sunlight
- GRO-LUX Aquarium Wide Spectrum for plants requiring full sunlight
- Combination of GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum were appropriate

SYLVANIA's GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum fluorescent lamps provide the essential energy for use in indoor gardening applications. Light provides the energy that plants need to produce food and other substances required for growth and flowering. These lamps provide the types of light that are most beneficial for these essential processes.

GRO-LUX Aquarium lamps provide the right balance of red and blue wavelengths for low-energy plants such as house plants. High-energy plants such as vegetables seem to require more energy in the red portion of the spectrum. The GRO-LUX Aquarium Wide Spectrum lamps or a 50/50 mix of the two types of GRO-LUX lamps may produce the best results for the high-energy plants.

In addition to providing essential energy for growth and maintenance, GRO-LUX lamps bring out the vibrant natural colors of the foliage, flowers and vegetables enhancing their appearance.

Application Information

Applications

For additional information, please call 1-800-LIGHTBULB or visit www.sylvania.com to obtain a copy of the Technical Information Bulletin "Light and Plants".

Fixtures

Contact your local fixture agent for available fixtures.

Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible ballasts for GRO-LUX lamps.

Application Notes

1. The F15T8, F20T12 & F30T8 lamps are preheat lamps and operate on the same ballasts and require the same starters as other preheat lamps of the same wattages. The lamps may also be operated on the appropriate trigger start ballasts.
2. The F40T12 lamps are rapid start lamps and operate on the same ballasts as other F40 rapid start lamps.

Product Availability

Wattage	Ordering Description
15	F15T8/GRO/AQ/RP
15	F15T12/GRO/AQ/WS/RP
20	F20T12/GRO/AQ/RP
20	F20T12/GRO/AQ/WS/RP
30	F30T8/GRO/AQ/RP
40	F40T12/GRO/AQ/RP
40	F40T12/GRO/AQ/WS/RP

3. Low-energy plants require about 15 fluorescent lamp watts per square foot about 12-15 inches above the plants.
4. High-energy plants require at least 20 fluorescent lamp watts per square foot about 12-15 inches above the plants.
5. Germinating seeds or cuttings being rooted requires about 10 lamp watts per square foot with the lamps about 6-8 inches above the plants.
6. For photosynthesis, if using incandescent lamps, you would need 2½ to 3 times the fluorescent wattage to provide PAR values equal to GRO-LUX Aquarium or GRO-LUX Aquarium Wide Spectrum lamps.
7. For equal light, if using incandescent lamps, you would need 1½ to 2 times the fluorescent wattage to provide light equal to the GRO-LUX Aquarium lamps and 2 to 2½ times the fluorescent wattage to provide light equal to the GRO-LUX Aquarium Wide Spectrum lamps.

Sample Specification

Lamp(s) shall be (GRO-LUX/Aquarium or GRO-LUX/Aquarium/Wide Spectrum) lamp(s). Lamps shall provide the red and blue wavelengths of energy needed for photosynthesis, and chlorophyll synthesis in plants and in general, provide the light needed for plants to flourish and look their best.

Ordering and Specification Information

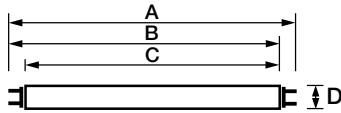
Item Number	Ordering Abbreviation	Watts	Bulb	Base	Length	Avg. Rated Life (hrs.)	Initial Lumens	CCT	CRI
21657	F15T8/GRO/AQ/RP	15	T8	Medium Bi-Pin	18"	7500	325	N/A	N/A
22029	F20T12/GRO/AQ/RP	20	T12	Medium Bi-Pin	24"	9000	480	N/A	N/A
23160	F30T8/GRO/AQ/RP	30	T8	Medium Bi-Pin	36"	7500	800	N/A	N/A
24660	F40T12/GRO/AQ/RP	40	T12	Medium Bi-Pin	48"	20,000	1200	N/A	N/A
22013	F20T12/GRO/AQ/WS/RP	20	T12	Medium Bi-Pin	24"	9000	750	3400K	89
24671	F40T12/GRO/AQ/WS/RP	40	T12	Medium Bi-Pin	48"	20,000	1875	3400K	89

Ordering Guide

F	40	T12	/	GRO	/	AQ	/	WS	/	RP
Fluorescent	Wattage: 15, 20, 30 or 40 watts	Tubular glass 12/8" (1.5") diameter		GRO-LUX		Aquarium		Wide Spectrum		Retail Package

Dimensions

	(A) MOL (in)	(B)	(C)	(D) Diameter (in)
F15T8	17.91"	17.50"	17.22"	1.10"
F20T12	23.78"	23.50"	23.22"	1.59"
F30T8	35.78"	35.50"	35.22"	1.10"
F40T12	47.78"	47.50"	47.22"	1.59"



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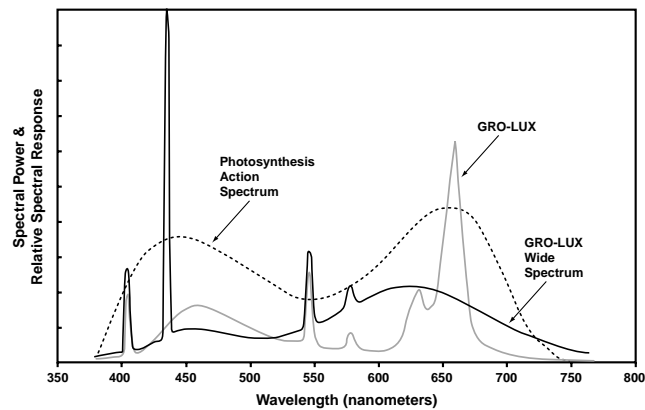
Phone: 1-800-263-2852
Fax: 1-800-667-6772

Special Markets

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Technical Information

Photosynthesis and GRO-LUX Lamps



Action Spectrum for Chlorophyll Synthesis

